

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A magnetic encoder device comprising:

a magnetic encoder including a permanent magnet fixed to a rotating body and a magnetic field detecting element which faces the permanent magnet through an air gap and is fixed to a fixed body, and

a signal processing circuit which processes a signal from the magnetic field detecting element, wherein

the rotating body has a ring shape,

the permanent magnet has a ring shape, is inscribed in and fixed to an inner circumferential side of the rotating body and magnetized in parallel to a direction perpendicular to a center axis of the rotating body,

the fixed body has a circular outer circumference and a cavity and is disposed at an inner circumferential side of the permanent magnet through the air gap, and

the magnetic field detecting element is disposed on an outer circumferential side of the fixed body through the permanent magnet and the air gap.

2. (original): The magnetic encoder device according to Claim 1, wherein the permanent magnet has parallel anisotropy and is magnetized to two poles.

3. (previously presented): The magnetic encoder device according to Claim 1, wherein

the rotating body is made of a magnetic material.

4. (previously presented): The magnetic encoder device according to Claim 1,
wherein

the fixed body is made of a magnetic material.

5. (original): The magnetic encoder device according to Claim 4, wherein
the magnetic material is made of sintered soft magnetic powdered material.

6. (original): The magnetic encoder device according to Claim 4, wherein
the magnetic material is formed by laminating a soft magnetic material.

7. (currently amended): [[The]] An actuator having a cavity and including an
electronic motor and an electronic brake, wherein

the actuator comprises [[the]] a magnetic encoder device, the magnetic encoder device
further comprises according to Claim 1

a magnetic encoder including a permanent magnet fixed to a rotating body and a
magnetic field detecting element which faces the permanent magnet through an air gap and is
fixed to a fixed body, and

a signal processing circuit which processes a signal from the magnetic field detecting
element, wherein

the rotating body has a ring shape,

the permanent magnet has a ring shape, is inscribed in and fixed to an inner
circumferential side of the rotating body and magnetized in parallel to a direction
perpendicular to a center axis of the rotating body,

the fixed body has a circular outer circumference and a cavity and is disposed at
an inner circumferential side of the permanent magnet through the air gap, and

the magnetic field detecting element is disposed on an outer circumferential side of the fixed body through the permanent magnet and the air gap.

8. (original): The actuator according to Claim 7, wherein
the fixed body of the magnetic encoder also functions as a portion of a magnetic yoke of the electronic brake.

9. (original): The actuator according to Claim 7, wherein
the fixed body of the magnetic encoder has a structure fitted to a magnetic yoke of the electronic brake.

10. (original): The actuator according to Claim 7, wherein
a magnetic shield is disposed between the electronic motor or the electronic brake and the magnetic encoder.

11. (original): The actuator according to Claim 7, wherein
a lead hole through which a power supply lead of the electronic brake passes is formed in the fixed body of the magnetic encoder.

12. (original): The actuator according to Claim 7, wherein
a notch portion through which a power supply lead of the electronic brake passes is formed in an inner circumferential side of the fixed body of the magnetic encoder.

13. (previously presented): The actuator according to Claim 11, wherein
the lead hole and the notch portion are disposed on a line for connecting a center of the fixed body to the magnetic field detecting element mounted on the fixed body.

14. (original): The actuator according to Claim 11, wherein
the lead hole is disposed at an inner circumferential side of the fixed body.

15. (previously presented): The actuator according to Claim 12, wherein

the lead hole and the notch portion are disposed on a line for connecting a center of the fixed body to the magnetic field detecting element mounted on the fixed body.